

APPENDIX I

Allowed claims of application serial no. 09/924,579, filed August 9, 2001
(original claims 32-34 of application serial no. 08/618,504, filed March 19, 1996)

1. A resin composition which comprises:

A. a thermoplastic resin, and,

B-1. a fatty acid esters composition of a polyglycerine containing more than 70% of a fatty acid monoester represented by the general formula (1) described below:



wherein R is an alkyl group, an alkenyl group, or a hydroxyl group-substituted alkyl group which has a carbon number ranging from 6 to 21, and n is an integer of at least 4, based on a peak area ratio detected using an ultraviolet ray absorption detector in a high performance liquid chromatographic analysis method; or

B-2. a highly-purified fatty acid esters composition of a polyglycerine having an oxirane oxygen concentration of below 100 ppm, said oxirane concentration is defined by the titration method defined in Cd. 9-57 of Journal of American Oil Chemists' Society, or having a ratio of below 0.01%, said ratio is a peak area value of a chemical shift between 2.7 ppm and 2.8 ppm assigned by methylene proton derived from an oxirane group with respect to a peak area value of a chemical shift between 3.4 ppm and 4.4 ppm assigned by methylene proton and methine proton derived from a polyglycerine with a proton NMR.

2. A resin composition which comprises:

A. a thermoplastic resin, and,

B. a fatty acid esters composition of a polyglycerine containing more than 70% of a fatty acid monoester represented by the general formula (1) described below:



wherein R is an alkyl group, an alkenyl group, or a hydroxyl group-substituted alkyl group which has a carbon number ranging from 6 to 21, and n is an integer of at least 4, based on a peak area ratio detected using an ultraviolet ray absorption detector in a high performance liquid chromatographic analysis method.

3. A resin composition which comprises:

A. a thermoplastic resin, and,

B. a highly-purified fatty acid esters composition of a polyglycerine having an oxirane oxygen concentration of below 100 ppm, said oxirane concentration is defined by the titration method defined in Cd. 9-57 of Journal of American Oil Chemists' Society, or having a ratio of below 0.01%, said ratio is a peak area value of a chemical shift between 2.7 ppm and 2.8 ppm assigned by methylene proton derived from an oxirane group with respect to a peak area value of a chemical shift between 3.4 ppm and 4.4 ppm assigned by methylene proton and methine proton derived from a polyglycerine with a proton NMR.

4. A resin composition as set forth in claim 1, wherein said thermoplastic resin is a polyvinyl chloride resin.

5. A resin composition as set forth in claim 1, wherein said thermoplastic resin is a styrene-based resin.

6. A resin composition as set forth in claim 5, wherein said styrene-based resin is at least one selected from the group consisting of a styrene homopolymer, a styrene-methylmethacrylate copolymer, a styrene-methylmethacrylate-acrylonitrile copolymer, a styrene-methylmethacrylate-methylacrylate copolymer, and a styrene-methylmethacrylate-methylacrylate-cyclohexylmaleimide copolymer.

7. A resin composition as set forth in claim 5, wherein said styrene-based resin is further mixed with a phosphorous compound and, optionally, a polyalkyleneglycol.

8. A resin composition as set forth in claim 1, wherein said thermoplastic resin is a methylmethacrylate-based resin.

9. A resin composition as set forth in claim 8, wherein said methylmethacrylate-based resin is further mixed with pentaerythritols or fatty acid esters thereof.

10. A resin composition as set forth in claim 1, wherein said thermoplastic resin is a polyacetal resin.

11. A resin composition as set forth in claim 10, wherein said polyacetal resin has a Melt Index of less than 2.

12. A resin composition as set forth in claim 10, wherein an article molded from said acetal resin has a contact angle of less than 50.

13. A resin composition as set forth in claim 10, wherein said fatty acid esters composition is mixed together with a hindered amine compound.

14. A resin composition as set forth in claim 10, wherein said fatty acid esters composition is mixed together with a hindered phenol-based compound, fibrous titanium oxide, and at least one selected from the group consisting of a compound having nitrogen, a hydroxide of alkaline metal or alkaline earth metal, and a metal salt of a carboxylic acid or an inorganic acid.

15. A resin composition as set forth in claim 10, wherein said resin composition is molded as a shutter for a disk or a magnetic tape cartridge.

16. A resin composition as set forth in claim 10, wherein said resin composition is molded as an ink jet nozzle.

APPENDIX II

Allowed Claims in application serial no. 08/618,504, filed March 19, 1996
now U.S. Patent No. 6,278,008

1. A fatty acid esters composition of a polyglycerine containing more than 70% of a fatty acid monoester represented by the general formula (1) described below:



wherein R is an alkyl group, an alkenyl group, or a hydroxyl group-substituted alkyl group which have a carbon number ranging from 6 to 21, and n is an integer of at least 4, based on a peak area ratio detected using an ultraviolet ray absorption detector in a high performance liquid chromatographic analysis method.

2. A fatty acid esters composition of a polyglycerine as set forth in claim 1 wherein said ultraviolet ray absorption detector includes an octadecyl group-containing silica gel column through which there is flown an eluent selected from the group consisting of methanol, methanol/water, ethanol, ethanol/water, isopropanol, and isopropanol/water.

3. A fatty acid esters composition of a polyglycerine as set forth in claim 1, wherein said R has a carbon number of at least 7.

4. A fatty acid esters composition of a polyglycerine as set forth in claim 1, wherein said fatty acid is lauric acid.

5. A fatty acid esters composition of a polyglycerine as set forth in claim 1, wherein said fatty acid is stearic acid.

6. A fatty acid esters composition of a polyglycerine as set forth in claim 1, wherein said composition includes a phosphoric acid-based acidic catalyst.

7. A fatty acid esters composition of a polyglycerine as set forth in claim 1, wherein said composition derives from a fatty acid and glycidol.
15. A highly-purified fatty acid esters composition of a polyglycerine having an oxirane oxygen concentration of below 100 ppm, said oxirane concentration is defined by the titration method defined in Cd. 9-57 of Journal of American Oil Chemists' Society, or having a ratio of below 0.01%, said ratio is a peak area value of a chemical shift between 2.7 ppm and 2.8 ppm assigned by methylene proton derived from an oxirane group with respect to a peak area value of a chemical shift between 3.4 ppm and 4.4 ppm assigned by methylene proton and methine proton derived from a polyglycerine with a proton NMR.
16. A highly-purified fatty acid esters composition of a polyglycerine as set forth in claim 15, wherein said composition derives from a fatty acid and glycidol.
17. A highly-purified fatty acid esters composition of a polyglycerine as set forth in claim 15, wherein said composition includes a phosphoric acid-based acidic catalyst.
18. A highly-purified fatty acid esters composition of a polyglycerine as set forth in claim 15, wherein said fatty acid has a carbon number of at least 7.
19. A highly-purified fatty acid esters composition of a polyglycerine as set forth in claim 15, wherein said fatty acid is lauric acid or stearic acid.
21. The additive as set forth in claim 65, wherein said food-stuff is a starch-based product.
22. The additive as set forth in claim 21, wherein said starch-based product is noodles.
23. The additive as set forth in claim 21, wherein said starch-based product is kneaded bread-stuff.

24. The additive as set forth in claim 21, wherein said starch-based product is bread, cookies, or cakes.

25. The additive as set forth in claim 65, wherein said food-stuff is a dairy product.

26. The additive as set forth in claim 25, wherein said dairy product is a milk fermented by lactic acid.

27. The additive as set forth in claim 25, wherein said dairy product is butter or cheese.

28. The additive as set forth in claim 65, wherein said food-stuff is processed meat or fish meat.

29. The additive as set forth in claim 65, wherein said food-stuff is a cacao drink.

30. The additive as set forth in claim 65, wherein said food-stuff is coffee or tea.

31. The additive as set forth in claim 65, wherein said food-stuff is an oil and fat composition.

65. An additive for a food-stuff comprising a fatty acid ester composition of a polyglycerine as set forth in claim 1 or 15.